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(54) Title: HCV REPLICONS CONTAINING NS5B FROM GENOTYPE 2B

 $\underline{\mathbf{SMSYZ^1WTGALITPCGPEEEKLPIX^1PLSNSLX^2}} \\ \mathbf{RFHNKVYSTTSRSASLRAKKVTFDRVQV} \\ \underline{\mathbf{LDAHYDSVLQDVKRAASKVSARLLTVEEACALTPPHSAKSRYGFGAKEVRSLSRRAVNHIR} \\ \mathbf{SVWEDLLEDQHTPIDTTIMAKNEVFCIDPTKGGKKPARLIVYPDLGVRVCEKMALYDIAQK} \\ \underline{\mathbf{LPKAIMGPSYGFQYSPAERVDFLLKAWGSKKDPMGFSYDTRCFDSTVTERDIRTEESIYQA} \\ \mathbf{CSLPQEARTVIHSLTERLYVGGPMTNSKGQSCGYRRCRASGVFTTSMGNTMTCYIKALAAC} \\ \mathbf{KAAGIVDPVMLVCGDDLVVISESQGNEEDERNLRAFTEAMTRYSAPPGDLPRPEYDLELIT} \\ \mathbf{SCSSNVSVALDSRGRRRYFLTRDPTTPX^3TRAAWETVRHSPVNSWLGNIIQYAPTIWVRMVI} \\ \mathbf{MTHFFSILLAQDTLNQNLNFEMYGAVYSVNPLDLPAIIERLHGLEAFSLHTYSPHELSRVA} \\ \mathbf{ATLRKLGAPPLRAWKSRARAVRASLIAQGARAAICGRYLFNWAVKTKLKLTPLPEASRLDL} \\ \mathbf{SGWFTVGAGGGGDIYHSVSHARPRLLLLCLLLLSVGVGIFLLPDR} \\ \end{aligned}$

(57) Abstract: The present invention features methods for enhancing the ability of a genotype 2b NS5B sequence to function in a replicon, for producing replicons containing a functional genotype 2b NS5B, and for using replicons to measure the ability of a compound to affect HCV replication that is sustained with the genotype 2b polymerase. Also featured is a genotype 1b NS4B adaptive mutation. The ability to produce replicons containing a functional genotype 2b NS5B is illustrated by the production of chimeric replicons based on HCV genotype 1b where substantially all the NS5B sequence is replaced with a genotype 2b NS5B.